

CLAIMS

1. -69. (Canceled)

70. (New) A mobile terminal comprising:

a GPS receiver to receive GPS data;

a cellular transceiver to communicate with a wireless communications network; and

wherein the mobile terminal generates GPS assistance data from the received GPS data,

and transmits the GPS assistance data to a remote mobile terminal via the wireless communications network.

71. (New) The mobile terminal of claim 70 wherein the mobile terminal and the remote mobile terminal are part of a group comprising a plurality of mobile terminals communicating via the wireless communications network.

72. (New) The mobile terminal of claim 71 wherein the group is a hierarchical group having one or more levels, and wherein the mobile terminal determines whether to transmit the GPS assistance data to the remote mobile terminal based on the level assigned to the remote mobile terminal.

73. (New) The mobile terminal of claim 71 wherein the group has one or more sub-groups, and wherein the mobile terminal determines whether to transmit the GPS assistance data to the remote mobile terminal based on the sub-group assigned to the remote mobile terminal.

74. (New) The mobile terminal of claim 73 wherein each of the one or more sub-groups is assigned a priority, and wherein the mobile terminal determines whether to transmit the GPS assistance data to the remote mobile terminal based on the priority of the sub-group assigned to the remote mobile terminal.

75. (New) The mobile terminal of claim 71 wherein the mobile terminal determines whether to transmit the GPS assistance data to the remote mobile terminal based on a priority assigned to the remote mobile terminal.

76. (New) The mobile terminal of claim 71 wherein formation of the group is ad-hoc.

77. (New) The mobile terminal of claim 71 wherein formation of the group is based on the geographic proximity of the mobile terminal and the remote mobile terminal.

78. (New) The mobile terminal of claim 71 wherein membership in the group is defined by a profile for each mobile terminal in the group.

79. (New) The mobile terminal of claim 78 wherein the mobile terminal transmits the GPS assistance data to the remote mobile terminal based on the information contained within the profile of the remote mobile terminal.

80. (New) The mobile terminal of claim 79 wherein the mobile terminal is configured to receive the profile of the remote mobile terminal.

81. (New) The mobile terminal of claim 79 wherein the mobile terminal is configured to retrieve the profile of the remote mobile terminal from a server in the wireless communications network.

82. (New) The mobile terminal of claim 70 wherein the mobile terminal is configured to transmit the GPS assistance data responsive to a request from the remote mobile terminal.

83. (New) The mobile terminal of claim 70 wherein the mobile terminal is configured to transmit the GPS assistance data automatically to the remote mobile terminal.

84. (New) A mobile terminal comprising:

a cellular transceiver to communicate with a wireless communications network;

wherein the mobile terminal receives GPS assistance data via the wireless communications network that was generated by a remote mobile terminal from GPS data received by the remote mobile terminal; and

wherein the mobile terminal determines a reference location based on the GPS assistance data received from the remote mobile terminal.

85. (New) The mobile terminal of claim 84 wherein the mobile terminal and the remote mobile terminal are part of a group comprising a plurality of mobile terminals communicating via the wireless communications network.

86. (New) The mobile terminal of claim 85 wherein the group is a hierarchical group having one or more levels, and wherein the mobile terminal determines whether to trust the GPS assistance data received from the remote mobile terminal based on the level assigned to the remote mobile terminal.

87. (New) The mobile terminal of claim 85 wherein the group has one or more sub-groups, and wherein the mobile terminal determines whether to trust the GPS assistance data received from the remote mobile terminal based on the sub-group assigned to the remote mobile terminal.

88. (New) The mobile terminal of claim 87 wherein each of the one or more sub-groups is assigned a priority, and wherein the mobile terminal determines whether to trust the GPS assistance data received from the remote mobile terminal based on the priority of the sub-group assigned to the remote mobile terminal.

89. (New) The mobile terminal of claim 85 wherein the mobile terminal determines whether to trust the GPS assistance data received from the remote mobile terminal based on a priority assigned to the remote mobile terminal.

90. (New) The mobile terminal of claim 84 wherein the mobile terminal is configured to request the GPS assistance data from the remote mobile terminal.

91. (New) The mobile terminal of claim 84 wherein the mobile terminal is configured to receive the GPS assistance data automatically from the remote mobile terminal.

92. (New) A method of exchanging GPS assistance data among mobile terminals communicating within a wireless communications network comprising:

receiving, at a mobile terminal communicating in a wireless communications network, GPS data from an external source;

generating, at the mobile terminal, GPS assistance data from the received GPS data;

determining, at the mobile terminal, whether to transmit the GPS assistance data to a remote mobile terminal communicating in the wireless communications network; and

transmitting the GPS assistance data to a remote mobile terminal via the wireless communications network based on the determination.

93. (New) The method of claim 92 further comprising forming a group comprising at least the mobile terminal and the remote terminal.

94. (New) The method of claim 93 wherein the group is a hierarchical group having one or more levels, and wherein the determination of whether to transmit the GPS assistance data to the remote mobile terminal is based on the level assigned to the remote mobile terminal.

95. (New) The method of claim 93 wherein the group includes one or more sub-groups, and wherein the determination of whether to transmit the GPS assistance data to the remote mobile terminal is based on the sub-group assigned to the remote mobile terminal.

96. (New) The method of claim 95 wherein each of the one or more sub-groups is assigned a priority, and wherein the determination of whether to transmit the GPS assistance data to the remote mobile terminal is based on the priority of the sub-group assigned to the remote mobile terminal.

97. (New) The method of claim 93 wherein the determination of whether to transmit the GPS assistance data to the remote mobile terminal is based on a priority assigned to the remote mobile terminal.
98. (New) The method of claim 93 wherein forming a group comprises forming an ad-hoc group.
99. (New) The method of claim 93 wherein forming a group comprises forming the group based on the geographic proximity of the mobile terminal and the remote mobile terminal.
100. (New) The method of claim 92 wherein the determination of whether to transmit the GPS assistance data to the remote mobile terminal is based on information contained within a profile set up by the user of the remote mobile terminal.
101. (New) The method of claim 100 further comprising receiving, at the mobile terminal, the profile of the remote mobile terminal.
102. (New) The method of claim 100 further comprising retrieving the profile of the remote mobile terminal from a server in the wireless communications network.
103. (New) The method of claim 92 further comprising the mobile terminal transmitting the GPS assistance data to the remote mobile terminal responsive to a request from the remote mobile terminal.
104. (New) The method of claim 92 further comprising the mobile terminal transmitting the GPS assistance data automatically to the remote mobile terminal.

105. (New) The method of claim 93 further comprising assigning the mobile terminal to periodically retrieve the GPS data and transmit the generated GPS assistance data to the remote mobile terminal.

106. (New) A method of exchanging GPS assistance data among mobile terminals

communicating within a wireless communications network comprising:

receiving, at a mobile terminal, GPS assistance data from a remote mobile terminal over a wireless communications network, the GPS assistance data being generated by the remote mobile terminal from GPS data received by the remote mobile terminal;
determining whether to trust the GPS assistance data received from the remote mobile terminal as valid; and
determining a reference location based on the GPS assistance data received from the remote mobile terminal.

107. (New) The method of claim 106 wherein the mobile terminal and the remote mobile terminal are part of a group comprising a plurality of mobile terminals communicating via the wireless communications network.

108. (New) The method of claim 107 wherein the group is a hierarchical group having one or more levels, and wherein the determination of whether to trust the GPS assistance data received from the remote mobile terminal is based on the level assigned to the remote mobile terminal.

109. (New) The method of claim 107 wherein the group has one or more sub-groups, and wherein the determination of whether to trust the GPS assistance data received from the remote mobile terminal is based on the sub-group assigned to the remote mobile terminal.

110. (New) The method of claim 107 wherein each of the one or more sub-groups is assigned a priority, and wherein the determination of whether to trust the GPS assistance data received

from the remote mobile terminal based on the priority of the sub-group assigned to the remote mobile terminal.

111. (New) The method of claim 107 further comprising assigning a priority to the remote mobile terminal, and wherein the determination of whether to trust the GPS assistance data received from the remote mobile terminal is based on the assigned priority.

112. (New) The method of claim 106 further comprising requesting the remote mobile terminal to transmit the GPS assistance data.

113. (New) The method of claim 106 further comprising receiving the GPS assistance data periodically from the remote mobile terminal.